NEW SPECIES OF BOLETOBIUS FROM THE NORTHWEST WITH A DISTRIBUTIONAL NOTE ON COPROPORUS

(Coleoptera, Staphylinidae)*

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During the course of an attempted monographic study of the Northwestern forms of the Staphylinid genus of *Boletobius*, several new species came to the writer's attention. While the whole work as originally conceived may not be completed for some time, due to present conditions, it seems worthwhile to present at least the descriptions of these new forms.

Boletobius kremeri Malkin, new species

Dark, piceous beneath, femora and tarsi yellow; head black, highly polished glabrous; maxillary and labial palpi pale yellow; third joint of the former short, pubescent. Thorax black; elytra red; abdomen piceous except last segment and posterior portion of the penultimate one which are red. Antennae: two basal joints pale yellow, 7-11 dark piceous. Joints 8-10 transverse. Thorax highly polished with setae bearing punctures on each side. Elytra: with three irregular dorsal rows of punctures with seta in each. The lateral row with 10 punctures, the middle with 9, some of which are obscured, the inner one with 7. Lateral elytral margins with a row of small spinules. Abdomen: black. First two segments polished on disc punctured on sides; the remainder of the segments with a long hairs. Punctures of the sixth segment very coarse, prolonged; fifth segment nearly twice as long as sixth anterior half distinctly darker. Margins of the segments with a long spinules increasing in size toward apex. The broad, lateral margins of the segments decreasing inward toward the apex, completely absent on the last segment. Ventral surface black. Margins of the epipleura castaneous. Legs dark yellow slightly paler toward the tarsi. Posterior half of the fifth segment and the entire sixth chestnut. Punctures very coarse prolonged. Trochi of the first pair of legs piceous. Femora with a dark cloud. Trochi, femora, tibia sparely punctured and muricate. Abdomen with the long fimbria along the sides and on the lateral portion of the segments, the largest at the posterior angle. Length, 8.2 mm.; width, 2.3 mm.

Male. Fifth segment with a small granulated area, feebly emarginate. Sixth, deeply, longitudinally impressed in the middle. Female. Last segment simple.

Holotype, male, Eugene, Lane County, Oregon, March 29, 1942 (B. Malkin & John S. Sadler). Allotype, female, Boyer,

^{*} A contribution from the Zoological laboratory of the University of Oregon.

LINCOLN COUNTY, OREGON, April 25, 1936 (K. M & D. M. Fender). Paratypes: 1 male, Glenada, Lane County, Oregon, September 14, 1941 (collected by the author from *Boletus* sp.). One male, Boyer, Lincoln County, Oregon (K. M. & D. M. Fender), 1 male, April 11, 1936, same locality (K. M. & D. M. Fender). One female, labeled; Seattle, Washington, without any other data, from Hatch collection.

The type material is distributed as follows: holotype, allotype and Glenada paratype in author's collection. Two paratypes in Fender's collection. The Seattle paratype in Dr. Hatch's collection.

This species runs in Horn's key to *intrusus* from which it differs having only 8-10 antennal joints transverse, 3 discal rows of punctures instead of one, coarser puctulation on the dorsal side of the abdomen and different coloration of the last two segments. It is also considerably larger than Horn's species.

This species is named after Mr. Jean H. Kremer of New York City, with whom the writer has spent many days in the field.

Boletobius ruber Malkin, new species

Reddish, shining, legs testaceous. Head: black, moderately elongate, highly polished, widest at base. Maxillary palpi testaceous; fourth joint short, conical, shorter than third; the first three sparsely pubescent. Antennae, as long as thorax and head. Basal joints testaceous, 5-11 piceous. Joints 6-10 very strongly transverse. Thorax highly polished, wider than long, with sides gently rounded. Disc of thorax reddish-piceous, margins reddishtestaceous, median line feeble. Elytra yellow-reddish slightly longer than wide, polished, very minutely, transversely alutaceous. The black spot in the posterior half not attaining the suture or the apical margin of the elytron. Elytral rows of punctures distributed thus: discal with 5 distinct, sutural with 7 somewhat less impressed, reaching the sides of the scutellum, lateral with 8-10. Abdomen red, except last two segments which are darker. Apical portion of all segments paler, all deeply impressed near the anterior margin. Surface polished very minutely alutaceous, deeply and distinctly punctured, with yellow short hairs throughout and longer dark spinules in the lateral portion of the last two segments. Undersurface reddish-piceous. Episterna sparsely, minutely punctured, with a tiny hair in each puncture. Abdominal segments, coarsely, unequally punctured. Apical portion of tibia with short, unequal spinules. Length, 5 mm.; width, 1.3 mm.

Male. The penultimate segments slightly, narrowly impressed in the posterior half. Last segment with granulated area divided in apical half.

Female. Last segment simple.

The coloration of the last two segments varies in the specimens on hand from reddish to piceous, but the two last are always darker than the others. The punctulation also varies slightly in the intensity, usually and stronger on the last two segments.

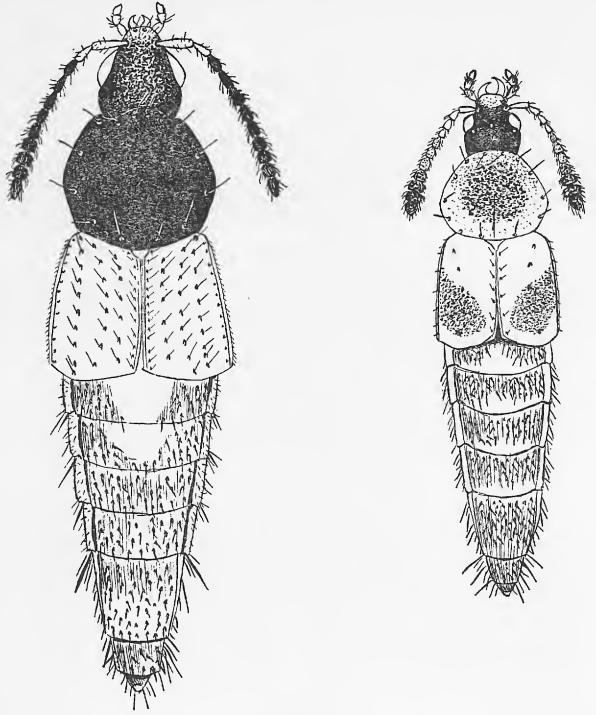


Figure 1
Boletobius kremeri Malkin, left; B. ruber Malkin, right.

Holotype, male and allotype, female, No. 5267, ASPEN GROVE, B. C., 22.V.1934 (collected by H. B. Leech under bark of *Pinus ponderosa*), in the Canadian National Collection. Paratypes: 2 males and 1 female the same data; 1 male, 3.V.1934, 1 female 7.V.1934, 1 female 14.V.1934, all from the same locality (H. B.

Leech, collector). One male, Penticon, B. C., 4.V.1936, (McDonald, collector). One female, Winnipeg, Manitoba, 4. VI. 1912 "from under bark of poplar tree at night" (J. B. Wallis, collector).

Paratypes deposited as follows: 1 in the collection of the Calfornia Academy of Sciences, 1 in J. B. Wallis' collection. The remainder equally distributed between the collections of Mr. H. B. Leech and that of the author.

This species seems to have its closest relative in dimidiatus Er. from which it can be easily separated by reddish color of the entire body, deeper punctulation of the abdominal segments, joints 6-10 strongly transverse, more distinctly impressed sutural, elytral punctures and thorax more broadly margined with paler band. In Horn's key it should be placed between dimidiatus and intrusus.

Boletobius kelleyi Malkin, new species

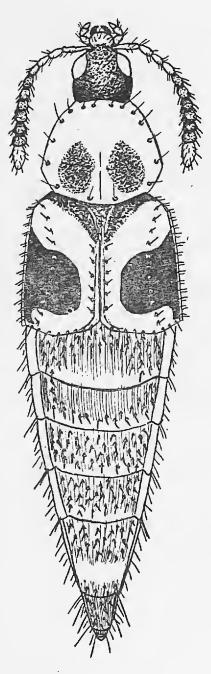
Color in general reddish-testaceous. Head black, twice as long as wide, highly polished with sparse, minute punctures. Maxillary palpi yellow, strongly prolonged. Fourth joint as long as the third. First minutely pubescent, second and third with tiny hairs in their apical portion. Antennae: four basal joints testaceous, 5-11 piceous, all longer than wide. Thorax wider than long, regularly curved on sides, highly polished reddish-testaceous in color with disc somewhat clouded and paler margins. Median line short, feeble. In the front near the anterior margin two small, triangular spots on each side. Elytra as long as wide. Two spots and transverse area around scutellum black. Dorsal series of elytral punctures with 6, sutural with 7 less distinct. Lateral row with 10 punctures. Abdomen reddish-castaneous except for the anterior portion of the fifth segment which is black. Segments feebly impressed and very sparsely punctured. Pubescence sparse, yellow. Hairs longer on the lateral portion of the segments. Lateral spinules short. Ventral surface: legs, femora, tarsi, tibia testaceous. Epipleura black, similarly punctured as in canadensis. Episterna alutaceous with large, shallow punctures. Abdominal segments similarly colored as on the dorsal side, but strongly and closely punctured. The punctures feebler and sparser on the last two. Length, 6.5 mm.; width, 1.9 mm.

Type No. 5266, Trinity Valley, B. C., 26.VI.1937 (H. B. Leech, collector), and 1 paratype, Langley, B. C., 26.VI.1932 (K. Broham, collector), both of undetermined sex in the Canadian National Collection.

In the Horn's key B. kelleyi runs to longiceps Lec. It can be distinguished from the latter species by: much paler coloration of the entire body with only small portion in the apex black,

presence of the two dark spots on thorax and the presence of the distinct black area around scutellum.

Variation: In the paratype the abdominal segments are slightly darker, while the scutellar area forms a triangle, whose lateral sides do not reach the margins of the elytra.



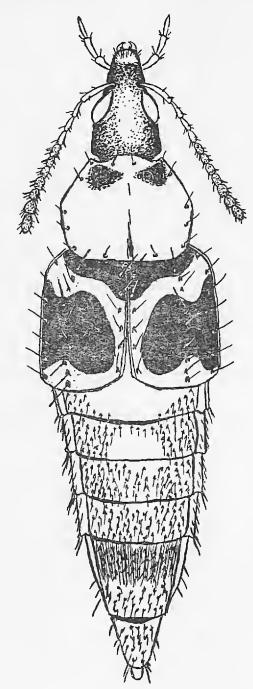


Figure 2
Boletobius cascadensis Malkin, left; B. kelleyi Malkin, right.

The species is named after Mr. Donald Greame-Kelley of New York City.

Boletobius cascadensis Malkin, new species

Head oval, highly polished, slightly longer than wide. Maxillary palpi yellow. Second joint as long as the third. The first three

pubescent. Antennae nearly as long as head and thorax. Basal joints testaceous, 5-11 piceous. Joints 6-10 slightly longer than wide, cup shaped. Thorax wider than long, regularly rounded, yellow, with a median dark line, and a well defined dark spot on each side of it. Surface polished, very minutely punctured, and almost invisibly, transversely alutaeceous. Elytra as long as wide, with a large variable black spot. The black area not attaining the sutural line or the posterior angles. Scutellum surrounded by the triangular black area. Disc with a series of feeble impressions. Dorsal series with 9 feeble, setae bearing punctures. Sutural with 10 still weaker, lateral width 7-9. Abdomen piceous with tips of segments paler. The yellow area on the fifth segment broader than on the rest, occupying almost four-fifths of the entire segment. Surface polished, alutaceous, sparsely punctured. Pubescence yellow, short. Lateral spinules short. Ventral side: mesosternum and episterna pitchy black. Epipleura black, with a row of regular, deep punctures in its anterior portion. Side pieces of metasternum regularly reticulate with a delicate, dark pubescence. Abdomen similarly colored as on the dorsal side, closely regularly punctured. The punctures prolonged, deep and distinct. Length, 6 mm.; width, 1.7 mm.

No secondary sexual characteristics determined.

Type and 3 paratypes, Scott Lake, one mile north of Mc-Kenzie Pass, Lane County, Oregon, altitude 4,800 feet, August 17, 1941, taken by the author from decaying *Boletus* sp. 1 paratype, Granite, Baker County, Oregon, June 15, 1941, K. M. & D. M. Fender, collectors.

Type and 2 paratypes in author's collection, 1 paratype in the collection of the California Academy of Sciences, 1 paratype in Fenders collection.

This species is very closely related to *B. anticus* Horn and it has probably been mistaken for that species in collections. It can be separated from the latter by having the thoracic spots posteriorly located instead of anteriorly, much broader yellow area on the fifth abdominal segment, and a very coarse punctulation on the ventral side of the abdominal segments.

The specimens on hand exhibit very little variation except for the extent of the elytral spot and the number of punctures in the lateral row. The dorsal row is quite uniform as well as the extent of the thoracic spots.

Boletobius cascadensis hatchi Malkin, new subspecies

Head oblong oval, black, shining. Maxillary palpi yellow all joints of nearly equal length. First two delicately pubescent. Thorax slightly wider than long; red, with disc indefinitely

clouded, polished, very delicately, transversely alutaceous. Elytra as long as wide, polished. The black spot variable in size somewhat posteriorly located, not attaining the suture. Dorsal series irregular, usually of 9 punctures, sutural of 10, lateral 8-10, irregular but distinct. Abdomen piceous, segments broadly yellow in the apical, posterior portion. Yellow area of fifth segment occupying the entire apical half. Punctures sparse but distinct with the golden pubescence. Surface transversely alutaceous. Lateral spinules short. Ventral side: femora, tarsi, tibia red-testaceous. Epipleura black, except in the apical portion where they are reddish-testaceous. Mesosternum and metasternum as in kelleyi. Color the same as on the dorsal side. Segments very coarsely punctured, thickly pubescent. The punctures on the last two segments feebler toward the apex. Length, 3.5 mm.; width, 1.25-1.6 mm.

Type and 26 paratypes of undetermined sex collected by M. H. Hatch on Mt. Bonaparte, Washington, July 12, 1931.

Type and 17 paratypes in Hatch collection. Four paratypes in author's collection. One paratype each in the collections of: California Academy of Sciences, Oregon State College, K. M. & D. M. Fender, C. A. Frost, and H. B. Leech.

The series studied vary greatly in size and in coloration, particularly in the extent of the elytral spot and in coloration of thorax. In some specimens the latter is almost piceous on the disc, but the margins are usually more pale in all specimens.

This form differs from *cascadensis* by having the epipleura black in the posterior half, more conspicuous pubescence on maxillary palpi, absence of a definite pattern on thorax and considerably smaller in size and more robust body.

B. cascadensis subsp. hatchi is undoubtedly, like the original form, mistaken in the collections for B. anticus. In Horn's key it should be placed between cascadensis and pygmeus Fab. At present time the writer considers hatchi as a subspecies but it is quite possible that in the future it will be separated as a distinct species.

Boletobius intrusus wallisi Malkin, new variety

This form resembles the original form very closely except for the following differences: Smaller size, abdomen of much paler color and more coarsely punctured surface of the abdominal segments. Length, 5 mm.; width, 1.5 mm.

Holotype, male and allotype, female, No. 5268, WINNIPEG, MANITOBA, 27.VI.1915, in the Canadian National Collection, both collected by Mr. J. B. Wallis.

COPROPORUS VENTRICULUS (SAY)

In Dr. Hatch's collection of *Tachyporini* a specimen of *Coproporus ventriculus* (Say) has been found taken at Pierce, Idaho, on July 27, 1939. This is apparenty a new record for the state. Blackwelder in his revision of the genus* lists Oregon, Nevada, Washington and California and several Eastern and middle-western states as habitat of the species, but does not mention any Idaho records. There are also in the same collection 16 old specimens labeled "Seattle, fungus" which confirms its presence in that state. In spite of the literature records, this only representative of the genus seems to be not common in the Northwest. The present writer has never been able to find any in Oregon, nor was he able to discover any in the Oregon collections as well as in other collections from the Northwest which he examined.

Acknowledgments: In addition to writer's own collection the following individuals contributed material for study through loan: Mr. H. B. Leech, Mr. J. B. Wallis, Dr. Melville H. Hatch, Professor James N. Macnab, Mr. and Mrs. Kenneth Fender, and Mr. L. G. Gentner. Thanks are also due to Mr. R. L. Post, curator of the entomological collection at Oregon State College, for the loan of certain material in his custody and to Mr. J. L. Shuh for the loan of the *Boletobius* material from his collection. The writer is also indebted to Dr. W. J. Gertsch of the American Museum of Natural History, to Dr. D. C. Mote of the Oregon State College, and to Mr. H. B. Leech for the help with certain literature, and to Miss Edith Onthank, a student at the University of Oregon, for drawings and assistance.

Spring Flight of Atimia dorsalis (Coleoptera, Cerambycidae)

Atimia dorsalis LeConte is common in southern British Columbia, where it breeds in western red cedar, Thuja plicata. It is the first longhorn to appear on the wing each spring ,and many individuals are abroad by mid-April. My earliest record is for March 20, 1932, on which date my brother, Geof. B. Leech, took a specimen flying, at Salmon Arm.—Hugh B. Leech, Vernon, B. C.

^{*}R. E. Blackwelder. 1988. "Revision of the N. A. Coproporus." Proc. U.S.N.M. 86, 1-10.